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**Jackson et al.**

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(54) **MULTI-START CLOSURES FOR OPEN IMPLANTS**

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606/306, 308, 315, 316; 403/362;  
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See application file for complete search history.

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(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 9 days.

This patent is subject to a terminal dis-  
claimer.

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(65) **Prior Publication Data**

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(51) **Int. Cl.**

**A61B 17/70** (2006.01)

**A61B 17/86** (2006.01)

(57) **ABSTRACT**

An open implant closure structure includes a helically  
wound guide and advancement structure having at least two  
helically wound forms thereon providing a multi-start clos-  
ing mechanism for use between spaced arms of a cooper-  
ating open medical implant having mating helically wound  
structure thereon. Illustrated structures include interlocking  
flange forms, v-threads, square threads, reverse angle  
threads and buttress threads and receivers with break-off  
extensions and cooperating tooling.

(52) **U.S. Cl.**

CPC ..... **A61B 17/7032** (2013.01); **A61B 17/7035**  
(2013.01); **A61B 17/8665** (2013.01)

(58) **Field of Classification Search**

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**30 Claims, 7 Drawing Sheets**

